

Part 501 – Authorizations

Subpart A – Review and Approval

TN501.1 Scope

A. Each TN-NRCS employee providing engineering technical assistance will obtain and maintain appropriate engineering job approval authority (EJAA) as follows:

(1) GS-457 Soil Conservationist

(i) GS-7/9

- Earn Class I planning, design, and construction EJAA for practices common to the county within one (1) year.
- Maintain Class I design EJAA while in position and demonstrate effort to earn Class II EJAA for planning and construction for practices common to county or counties.

(ii) GS-11

- Earn Class II planning, design, and construction EJAA for practices common to area within one (1) year of becoming GS-11.
- Maintain Class II design EJAA while in position and demonstrate effort to earn Class III EJAA for planning and construction for practices common to county or counties.

(iii) GS-12

- If new to area, earn Class II EJAA for practices common to area within one (1) year.
- Maintain Class II planning, design, and construction EJAA while in position and show/earn Class IV EJAA for planning and construction for practices common to county or counties.

(2) GS-458 Soil Conservation Technician

(i) GS 4/5

- Earn Class I planning, design, and construction EJAA for practices common to the county within one (1) year.
- Maintain Class I design EJAA while in position and demonstrate effort to earn Class II EJAA for planning and construction for practices common to county or counties.

(ii) GS 6/7/8

- Earn Class II planning, design, and construction EJAA for practices common to the county within one (1) year.

- Maintain Class II design EJAA while in position and demonstrate effort to earn Class III EJAA for planning and construction for practices common to county or counties.
- B. Non-NRCS employees operating under the technical supervision of an NRCS employee and providing engineering services must be evaluated and assigned an appropriate engineering job approval as provided in Section 501.1(A) with the following additional criteria:
- (3) Non-NRCS employees who are not Federal employees and are not licensed to practice engineering in Tennessee and who are specifically assigned to carry out NRCS work under the direct technical supervision and control of a NRCS employee may be delegated EJAA. Only planning and construction EJAA can be assigned to non-NRCS employees. (Also see section TN501.4(B) of this supplement.)
- (i) Non-NRCS employees who are not Federal employees and are not licensed to practice engineering in Tennessee must adhere to Tennessee Code Annotated, Title 62, Chapter 2, “Architects, Engineers, Landscape Architects, and Interior Designers,” for regulating the practice of engineering.
 - (ii) Due to liability issues and Tennessee laws regarding the practice of engineering, the delegating engineer must confer with the State Conservation Engineer (SCE) prior to delegating EJAA to non-NRCS employees.
 - (iii) Before EJAA can be delegated to non-NRCS employees, a Memorandum of Understanding (MOU) [Exhibit 1] or other written agreement between the employee’s employer and NRCS will be required. The MOU or other written agreement must specifically state that the employee is assigned to NRCS to carry out NRCS work under the direct technical supervision and control of the employees of NRCS. A copy of the MOU must be attached to the Tennessee Engineering Job Approval Authority, TN-ENG-1.
 - (iv) The delegating authority must provide a copy of the signed MOU and TN-ENG-1 for the non-NRCS employee to the SCE.
 - (v) Delegating EJAA to a district employee by NRCS does not provide any liability protection for the district nor does it provide any protection to the individual district employee. The Federal Government cannot provide legal protection for a district employee based solely on the fact that the employee was operating under a job approval authority established by NRCS.

C. Exhibit

EJAA – MOU (Memo of Understanding) (Exhibit 1)

TN501.3 Compliance of Engineering Work With Laws and Regulations

C. The State Conservationist Engineer (SCE) develops policy and procedures for approving and sealing engineering plans --

(4) Tennessee NRCS procedures for signing and sealing engineering plans:

- (i) Routine jobs designed by NRCS and non-NRCS employees working as partners with NRCS normally do not require the plans to be sealed by a professional engineer (PE). However, when sealing is required, the approving engineer may seal the plans. If the approving engineer is not licensed in Tennessee or does not have the appropriate EJAA, arrangements must be made with the SCE prior to beginning the design.
- (ii) Tennessee Code Annotated laws regulating the practice of engineering require that drawings, plans, specifications, and estimates be prepared by and the construction executed under the direct supervision of a professional engineer for projects of public work that exceed \$25,000. Therefore, for projects with a county or city unit of government sponsor for which NRCS designs and provides construction supervision and that exceed \$25,000, a professional engineer (PE) must seal the plans and provide oversight for the construction activities.
 - Engineering plans sealed by the engineer must be personally prepared by the engineer or prepared under the responsible engineer's supervision, direction, or control and be within the engineer's job approval authority.
 - All engineering drawings and specifications for WF-08, Flood Water Retarding Structures, Dam Rehabilitation, and the Emergency Watershed Protection (EWP) program will be approved by the SCE. Other project-type drawings and specifications can be approved according to the delegated engineer's job approval authority.
- (iii) The SCE and NRCS engineers registered as Professional Engineers in the State of Tennessee are authorized to sign and seal engineering plans within their delegated EJAA for plans that are required to be submitted to regulatory agencies for review, approval, or the granting of permits. NRCS personnel must not act as agents for cooperators in securing permits.
- (iv) If a cooperating local organization for which NRCS is providing technical assistance is required by law to have plans for public works prepared under direct supervision of a registered professional engineer, the SCE or other NRCS engineers registered as Professional Engineers in Tennessee are authorized to seal engineering plans within their delegated EJAA.

TN501.4 Engineering Job Approval Authority

B. State Engineering Job Approval Authority (Classes I Through V).

(2) Tennessee's Engineering Job Approval Authority (EJAA) – Classes I through V

- (i) This policy applies to all individuals having planning, design, or installation responsibility, including conservation district employees and other agencies that are under NRCS technical supervision except for construction inspection of project activities or similar contract jobs where letters of inspection instruction are issued.
- (ii) The engineering job class must be determined before engineering assistance is provided and documented in the assistance notes. As technical assistance is provided on the engineering work, the engineering job class must be constantly re-evaluated and documented to ensure the engineering work is within the person's EJAA.
- (iii) Inventory and evaluation (I&E), design, and construction of engineering practices must be approved by a person with appropriate EJAA before the corresponding alternatives are presented, design is finalized, and construction (installation) is started. Prior to recording decisions in the conservation plan that involve engineering practices, documentation must show that the planned engineering practices were approved by an individual with the appropriate inventory and evaluation job approval authority. This must be documented by the planner noting decisions made in the conservation assistance notes.
- (iv) Engineering designs and installation are to provide for all aspects of technical quality as stated in Title 210, National Engineering Manual (NEM), Part 501, Subpart A, Section 501.2, "Technical Quality."
- (v) Engineering job review and approval should be provided by the person closest to the job with technical responsibility for that location. Where personnel with appropriate EJAA are not available in the field office, the engineer assigned to provide assistance to the field office must review and approve the job. If higher engineering job approval authority is needed, the job must be submitted to the Area Engineer for review and approval.
- (vi) Jobs above the Area Engineer's EJAA must have the SCE's concurrence during the I&E (planning) stage prior to commitment of NRCS resources.
- (vii) Any NRCS employee or non-NRCS employee operating under the technical supervision of an NRCS employee may survey, design, and prepare the engineering plans for jobs requiring approval at any level of engineering job classification. However, final approval of the plans must be made in accordance with delegated EJAA. Before committing resources, employees must consult with the person who will review and approve the engineering plan.
- (viii) All design calculations and plans must be checked by someone other than the person performing the design. The person checking design calculations must have appropriate EJAA. Design calculations must be checked prior to construction and

initialed and dated by the person checking the plans. The person checking the plans is responsible for determining that all calculations, dimensions, lines, notes, drawing details, and specifications are correct. Each sheet of the engineering plans must be initialed and dated by the person checking the plans.

- (ix) The employee approving the engineering design must review the designs, drawings, and specifications and be satisfied that (1) adequate field investigations have been performed; (2) the plans conform to NRCS standards and policy; (3) the layout is suitable; (4) all calculations have been checked and initialed; and, (5) installations, if made in accordance with the plans and specifications, will function properly. Each sheet of the engineering plans must be signed and dated by the person approving the plans.
 - (x) Approval of engineering work within the limits of the EJAA places the full responsibility on the individual for planning, design, and construction of the practice. Any engineering practice may involve complexities, such as geology or hydrology, with which the employee may be unfamiliar. Employees must request assistance when complexities are encountered which exceed their expertise.
 - (xi) All structural works of improvement prepared by NRCS for formal contracting must be reviewed and approved by the SCE.
- (3) Engineering job approval authority (EJAA) will be delegated according to the job classes established in the Tennessee Engineering Job Approval Authority, TN-ENG-1 [Exhibit 2]. EJAA applies to engineering investigations and reports, designs, and construction certification for conservation practices.
- (i) The SCE will delegate EJAA of all the Area Engineers (AEs) and State office engineers in grades GS-12 and above. The AE will delegate EJAA to employees, volunteers, and others within their assigned counties with the concurrence of the employee’s supervisor.
 - (ii) Maximum EJAA for design will generally be limited to individuals by job class as follows:

Class I	Routine Field Office applications (most of field office personnel, district or county employee, volunteer – State, county, or other agency employee)
Class II	Applications requiring alternative design approaches (selective field personnel trained to handle such applications)
Class III	Complex applications requiring knowledge of engineering principles and concepts (selective field personnel trained to handle such applications)
Class IV	Complex engineering applications (non-licensed engineers)
Class V	Complex engineering applications (licensed Professional Engineers)

- (iii) Employees may only be given EJAA after adequate training and upon demonstrated proficiency. Their proficiency should be evaluated on the basis of knowledge of applicable investigation and design criteria and technical resources, judgment, ability to make sound decisions and follow policy, willingness to

request assistance and guidance if needed, and performance on smaller jobs. Engineers delegating EJAA should review an adequate number of designs or installations at the appropriate engineering job class level of each practice prepared by the employee. Major factors to be considered include knowledge of policies, applicability, accuracy, completeness of note and record keeping, technical adequacy, and construction applicability.

- (iv) All planned and designed practices must be classified according to the job class as listed in TN-ENG-1. The job class will be noted on the engineering drawing cover sheet or in the field notes as appropriate. The classification for a given job will be based on the most restrictive element listed for the conservation practice.
- (v) All employees, volunteers, and others that are delegated approval authority must be appraised on their level of proficiency and issued a copy of the TN-ENG-1 along with a cover letter [Exhibit 3]. The responsible engineer must review the employee's approval authority at the frequency of not less than every three (3) years as stated in 210-NEM, Part 501, Subpart A, Section 501.4 (B)(5). Approval authority must only be assigned to an individual for practices which the individual has demonstrated competence and proficiency in designing and installing.
- (vi) If a review of an employee's engineering work reveals a need to revise (increase or decrease) the employee's EJAA, the reasons must be documented in writing to the employee and the employee's administrative supervisor. The responsible engineer must send a revised delegated approval authority to the employee's administrative supervisor. The employee's administrative supervisor must concur in the revised delegation and reissue in writing to the employee the revised approval authority.
- (vii) Transfer of EJAA: Employees transferred within the state to another area must be reissued EJAA in the receiving area within six (6) months if the current EJAA is older than three (3) years.
- (viii) Restriction or Revocation of EJAA:
 - Individual EJAA may be revoked or restricted at any time by the delegating engineer, the AE, or the SCE.
 - If approval authority is revoked, the SCE and the employee's administrative supervisor will be notified as soon as practical for additional guidance. Some possible reasons for revocation or restriction of EJAA may include, but are not limited to, questionable planning to address a resource concern, errors or omissions on designs or construction, or failure to following engineering policy, such as working outside of delegated authority.
 - Documentation for revocation may include, but is not limited to, trip reports, peer reviews, spot checks, or Quality Assurance Reviews (QARs).

C. Approval of Class VI Through Class VIII Jobs

- (4) Class VI through Class VIII jobs must be identified early in the planning stage. The Area Conservationist (AC) must provide leadership in developing planning, design, and construction schedules for projects in their administrative area. Approval from the State Conservationist must be obtained prior to the development of these schedules.
- (5) The schedule must indicate the job or project name, county, type of project, area specialists responsible, and projected date for completing items of work, such as surveys, preliminary design, and final design including construction specifications, cost estimate, and the date that the final construction drawings are needed. The job schedule should be prepared prior to obtaining design surveys. The schedule will be provided to the SCE for review and concurrence and to assist in scheduling expertise needed and assignment of priorities.
- (6) Engineering design assistance, review, and processing for engineering Job Class VI through VIII will be coordinated by the SCE. The SCE is responsible for:
 - (i) Securing and coordinating assistance with NRCS specialists from the National Design, Construction and Soil Mechanics Center (NDCSMC) or other states as appropriate.
 - (ii) Providing and coordinating data needed by outside technical specialists assigned to provide technical assistance to Tennessee.
 - (iii) Approving the final engineering plans and specifications.
 - (iv) Installation.

G. Exhibits

- (i) TN-MGT-1 (Exhibit 2)
- (ii) EJAA – Cover Letter (Exhibit 3)

TN501.5 Engineering Job Review

A. Design Reviews

(3) Design reviews will be performed as follows:

- (i) Design reviews will be performed for engineering job Classes I through V. Jobs, regardless of engineering job class, must receive a design review prior to final approval by the employee with delegated approval authority. The employee approving the job will obtain the design review.
- (ii) The SCE or a designee of the SCE will review Class VI jobs. The Area Engineer or designer will obtain the design review.

B. Post Reviews

(i) Classes I-VI.

- The Area Engineer will conduct post reviews (spot checks) in their administrative area in conformance with 340-GM, Part 404 – Compliance – Internal and External, Subpart D – Spot Checks; 450-GM, Part 407 – Documentation, Certification, and Spot Checking; and, Tennessee supplement. The AC will provide a summary of the engineering spot check reports to the SCE.
- The SCE or his or her designee will conduct a Quality Assurance Review of representative Classes I through V engineering jobs that were designed and approved by the Area Engineer in each administrative area in coordination with the schedule of the State Quality Assurance Plan. List of practices to review will include higher class jobs as determined by the SCE.
- The number and type of jobs reviewed will be determined by the SCE. Post reviews will include a variety of job types. All similar jobs will receive a post review or Quality Assurance Review a minimum of once every three (3) years. The SCE will submit a copy of the post review to the STC and AC.
- Area Conservationists (ACs) are administratively responsible for the technical adequacy of service assistance in the planning and application of engineering practices within their area. District Conservationists have similar responsibilities within their field office jurisdiction. The AC will follow up on all recommendations and action items noted in the engineering post review report or Quality Assurance Review.